

# Myths Surrounding Auction 35

- ① Large carriers need additional spectrum.
- ② Only large carriers can build out the spectrum.
- ③ The DE's are inactive and not building.
- ④ Acquisition of the C and F blocks by the large carriers will best serve the public interest.
- ⑤ 10 MHz is sufficient for the small carriers.

## Large Carriers Are Trying to Grab Spectrum

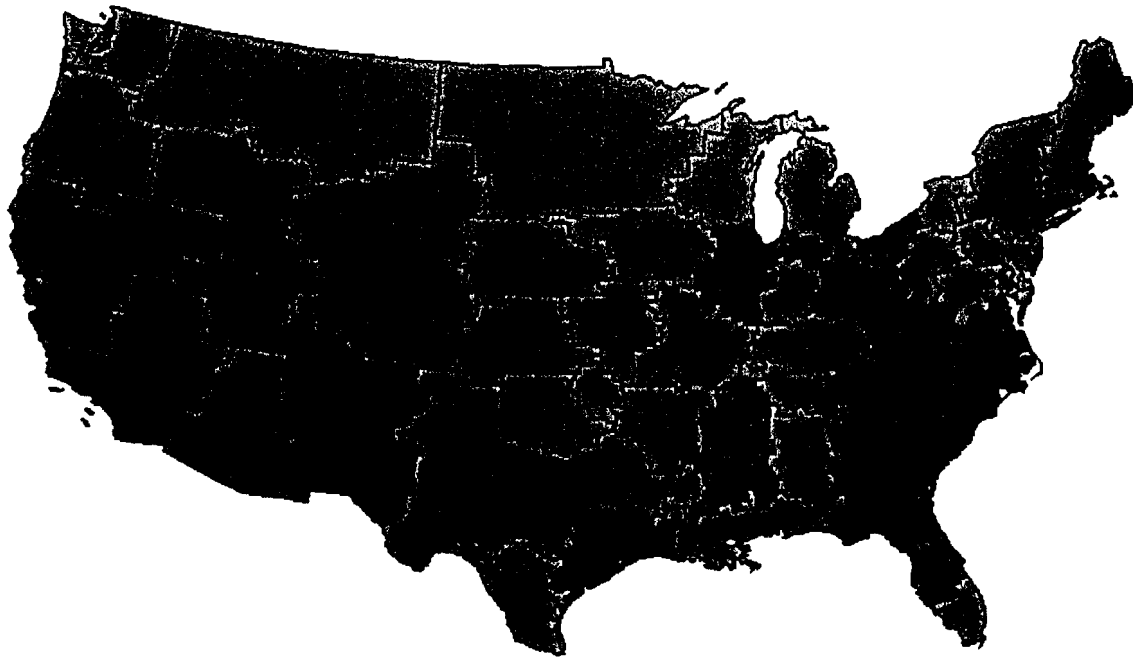
- Sprint PCS
- AT&T
- SBC – Bell South
- Verizon

# Sprint PCS

- Has spectrum in all areas of the USA
  - 33 MTAs in lower 48
  - 129 BTAs in the lower 48
- Sprint reports using no more than 7.5 MHz in any market
- Sprint is only building major metropolitan areas and corridors/highways between
- Sprint is allocating spectrum to affiliates to build out their smaller markets

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# Sprint Holdings



Green – MTA's  
Red – BTA's


Source- CTIA

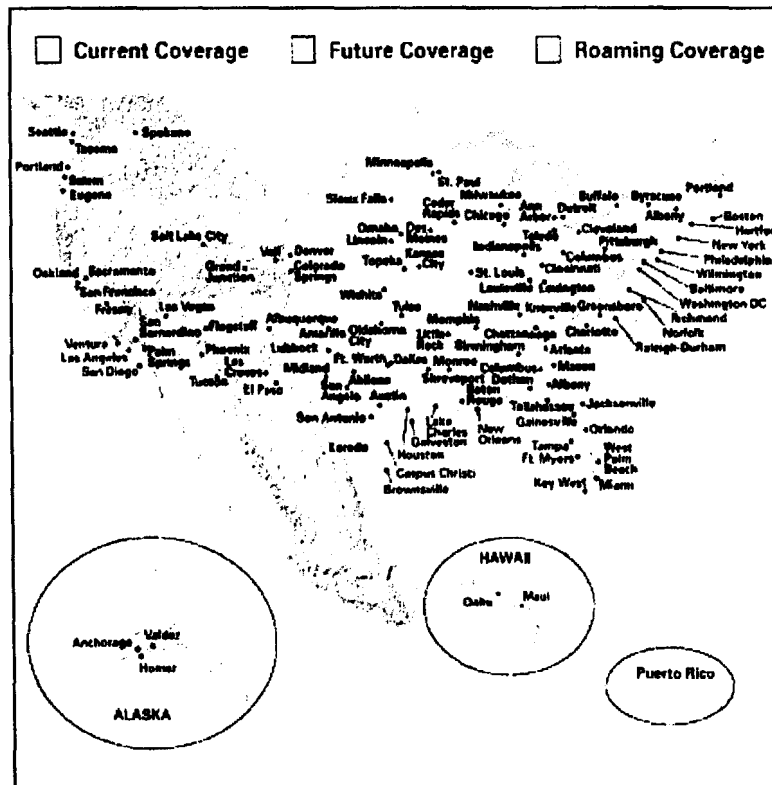
# ALPINE PCS, Inc.

# Sprint's Home Page

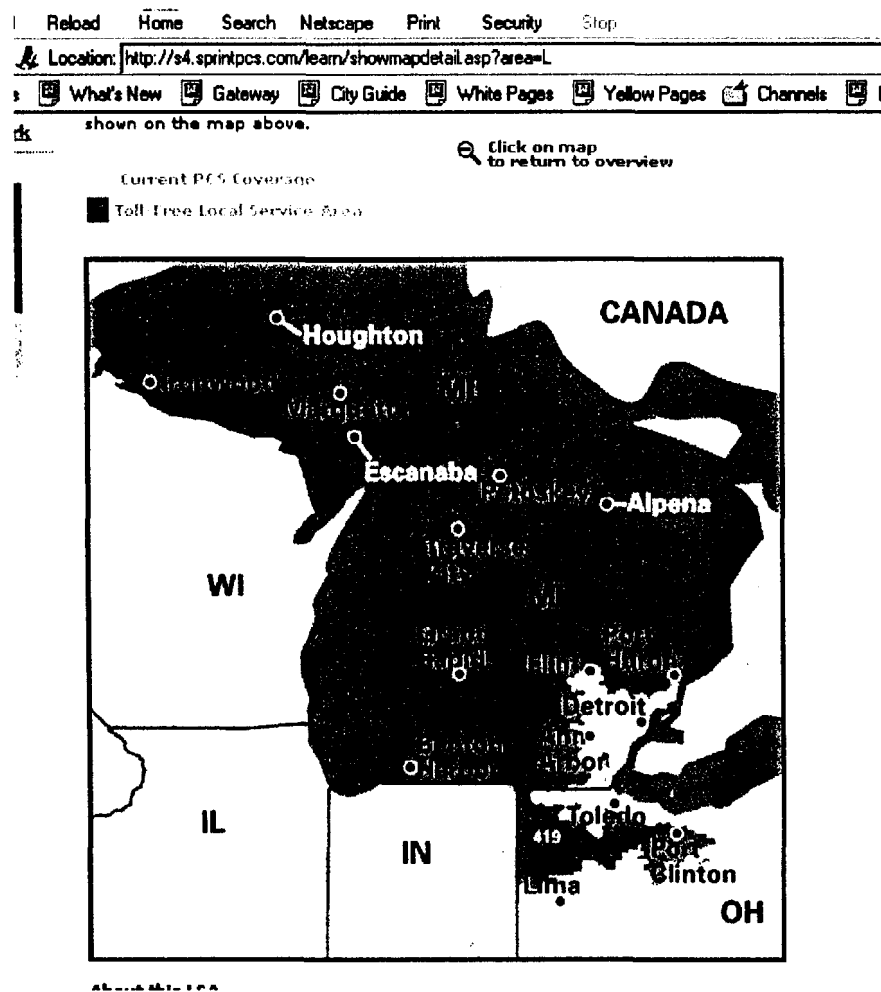
Some say, no matter where you go within the Nationwide Sprint PCS Network. When you travel, incoming calls find you automatically. There's no need to tell us where you're going or enter any special codes.

### Select Service Plans

 Click on map  
to return to overview

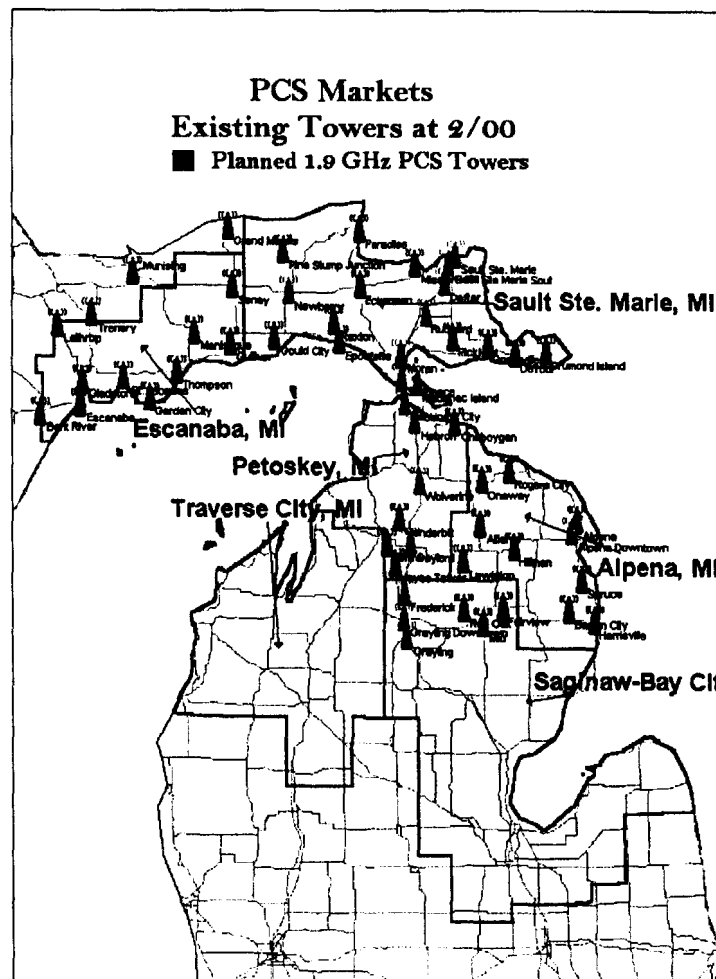


## Sprint Buildout in Northern Michigan



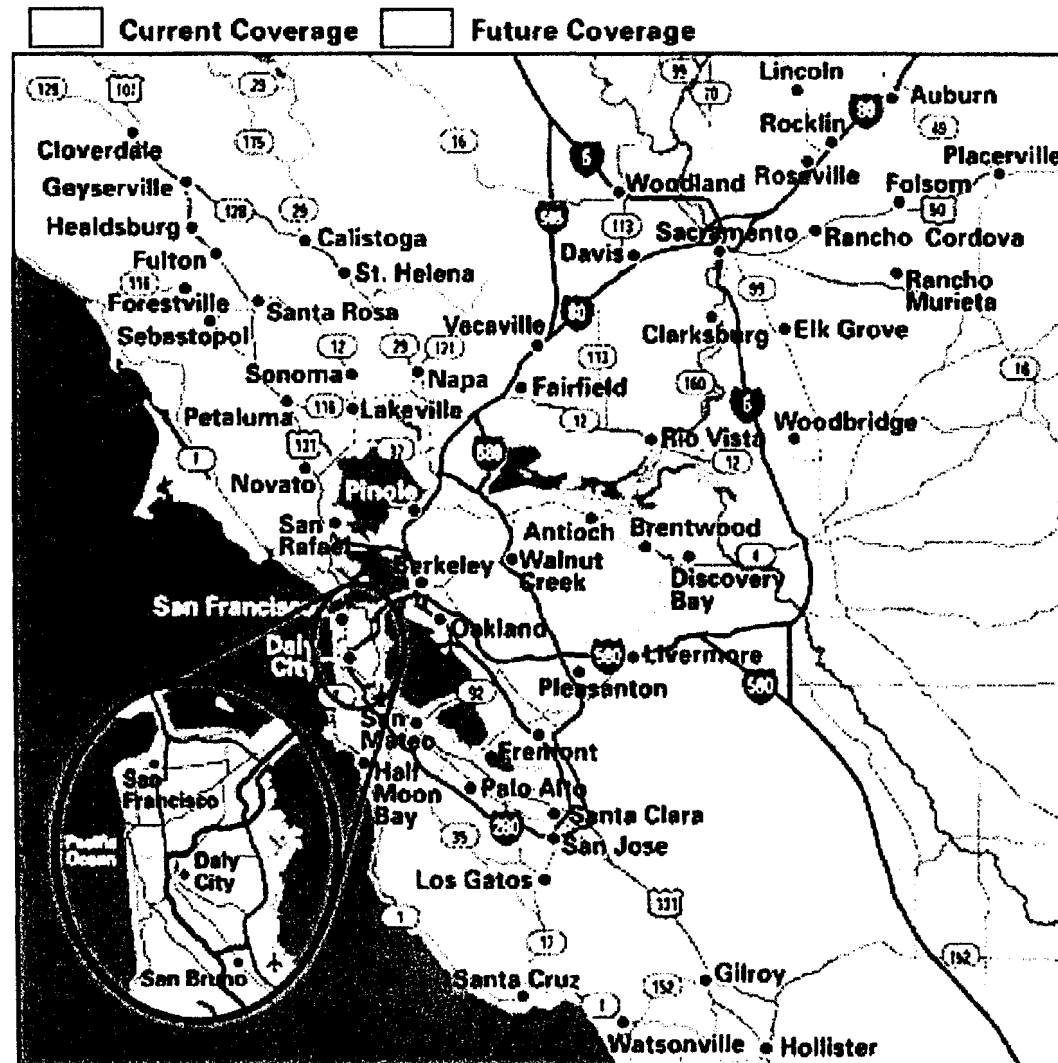
# ALPINE PCS, Inc.

## Alpine Buildout in MI



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# Sprint Buildout in San Francisco



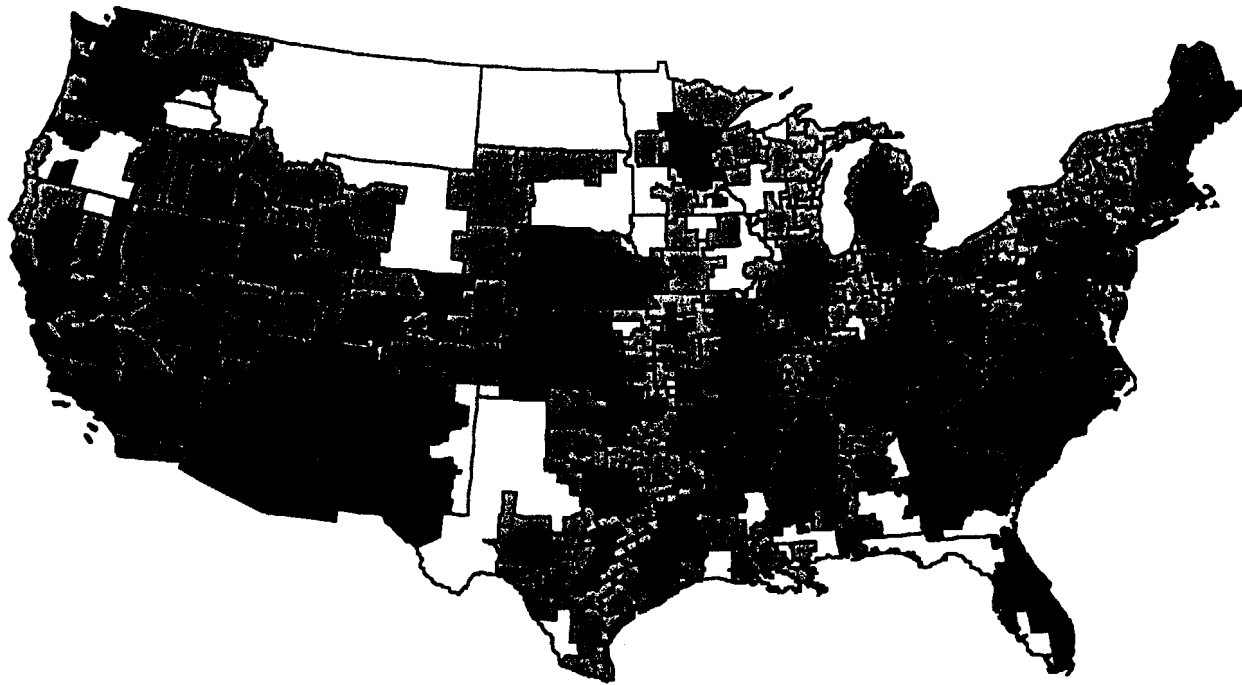


## AT&T Wireless

- Has spectrum in most areas of the lower 48
  - 22 MTA's
  - 189 Physical BTAs (no double counting)
  - 150 Cellular Licenses
- Using surrogates to build out rural markets

**ALPINE PCS, Inc.**

# AT&T Wireless



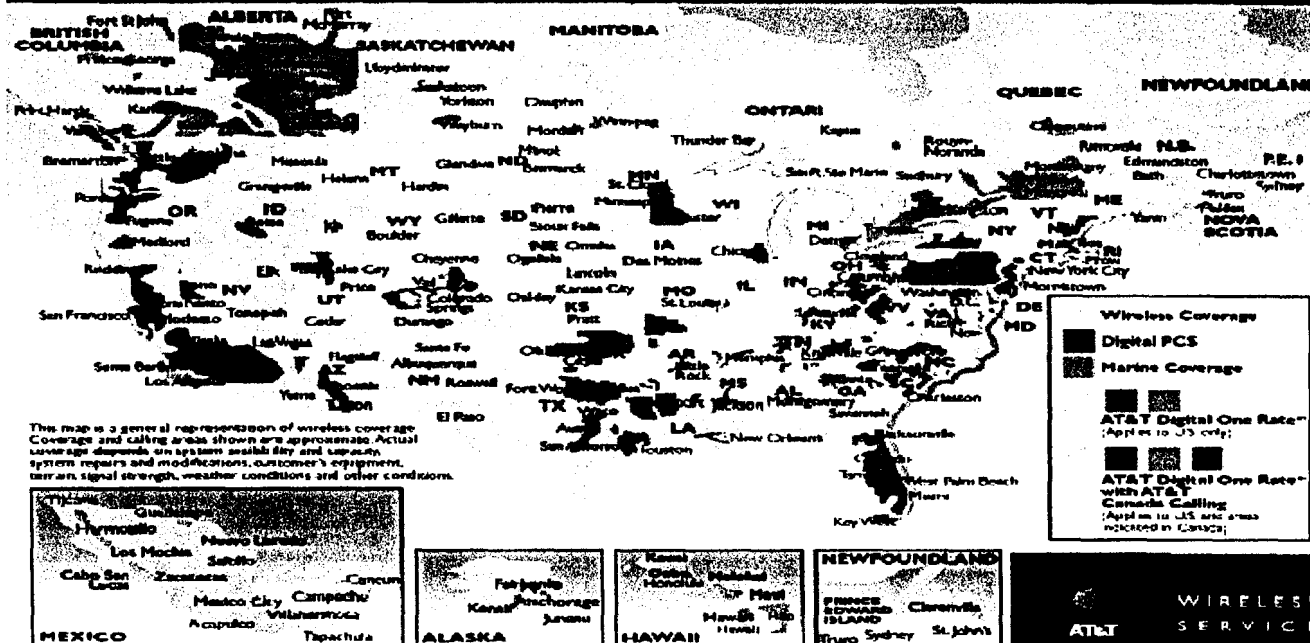
Purple – MTA's  
Green – BTA's  
Blue - Cellular

Source - CTIA

## AT&T Home Page

AT&T National Coverage Map - Netscape

### NORTH AMERICAN COVERAGE MAP



- Wireless Coverage  
Make and receive calls
- Canada Wireless Coverage  
Service in Canada provided by Cantel/AT&T.
- Canada Digital PCS  
Digital PCS features are available.
- AT&T Digital PCS  
Digital PCS features are available.
- Canada Digital PCS  
Digital PCS features are available.  
Service in Canada provided by Cantel/AT&T.
- Mexico Wireless Coverage

- Canada Marine Coverage
- US Marine Coverage
- AT&T Digital One Rate<sup>SM</sup> with AT&T Canada Calling
- AT&T Digital One Rate<sup>SM</sup>

U.S. AT&T Partnership Market  
Digital PCS Coverage Area

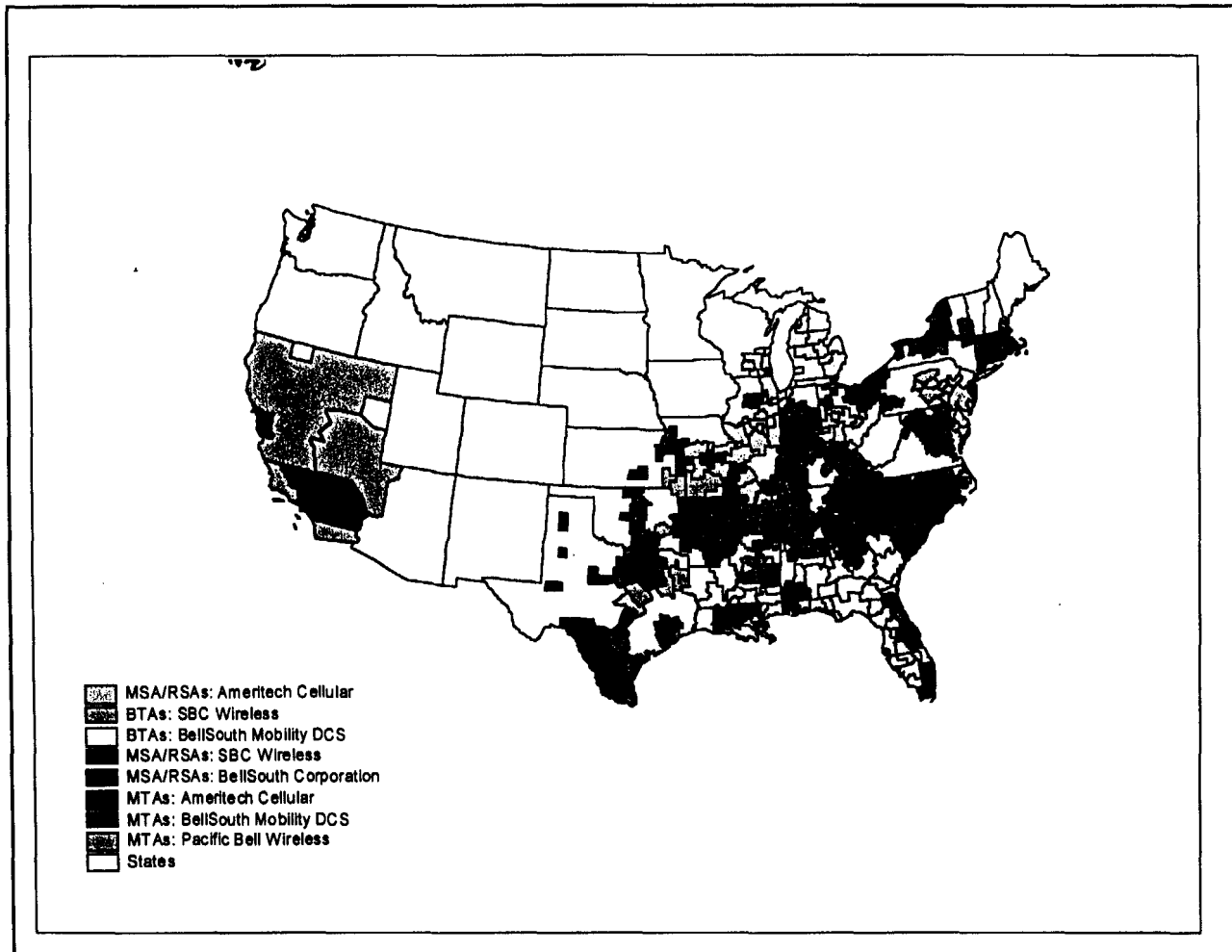
This map is a very general representation of wireless coverage. Coverage areas shown are approximate. Actual coverage may vary due to customer's equipment, terrain, system limitations and weather conditions.

# SBC

- SBC never entered auctions – but acquired companies that did
  - Pac Bell
  - Ameritech
- SBC and BellSouth are merging wireless properties to expand their footprint
- SBC claims that they are spectrum constrained in Dallas
  - Yet they are selling spectrum inefficient analog phones for low end and prepaid service in Dallas and DC
  - Their need is primarily footprint not bandwidth in existing markets

# ALPINE PCS, Inc.

## SBC – BellSouth



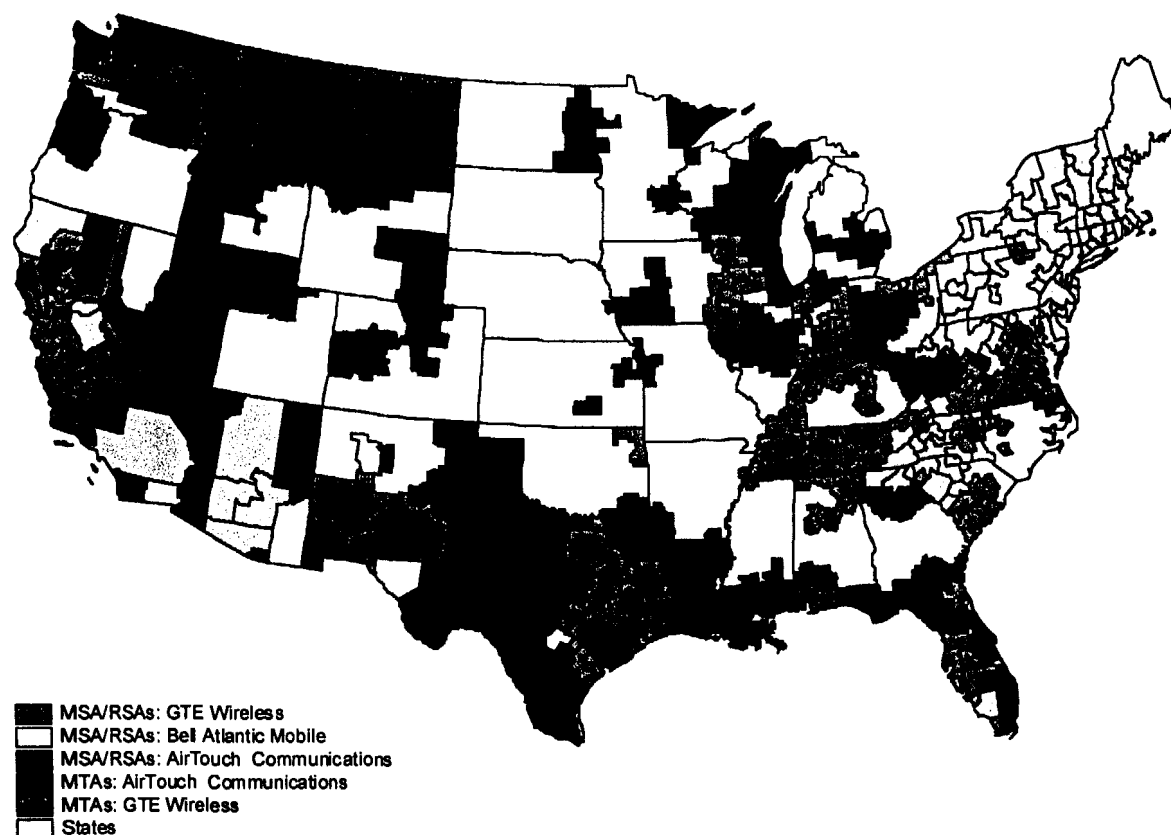
Source - CTIA

## Verizon

- *Vodafone AirTouch*
- *Bell Atlantic*
- *GTE*

# ALPINE PCS, Inc.

## Verizon



Includes Overlap

Source - CTIA

## Verizon

- As with SBC, why do they need spectrum if they continue to sell spectrum inefficient analog service?
  - Prepaid plans are analog\*
  - Low end plans are analog
- Answer:
  1. They need footprint
  2. To stifle competition in served markets

\*Prepaid is the fastest growing segment of the business



## PCS Truths

- The larger companies will use new spectrum to expand footprint and/or stifle competition
- Using the C-Block is easier than developing new infrastructure for other bands like 700 MHz

## PCS Truths (cont'd)

- Larger companies lack the capital to build out the rural markets
  - Some of the larger companies are renting their spectrum to affiliates to build out secondary markets
  - Some of the larger companies are only building the corridors between their large markets

## PCS Truths (cont'd)

- True Designated Entities are actively building
  - Alpine PCS
  - Leap
  - Tern Wireless
  - Noverr
  - Omnipoint
  - Etc.

## PCS Truths (cont'd)

- The public interest is better served if the DEs are allowed to compete on equal terms with the large carriers
  - In major markets
  - With no less than 20 MHz of spectrum
  - Using innovative service plans such as “all you can eat”
  - And the large carriers can't concentrate & warehouse spectrum and thereby prevent DEs from developing successful businesses

## PCS Truths (cont'd)

- 10 MHz is insufficient to compete with 30+ MHz
  - Actually 5 MHz in each direction
  - Only supports three 1.25 MHz CDMA carriers
  - “all you can eat” service plans require very high network capacity and consumes all 3 CDMA carriers quickly
  - 10 MHz not sufficient to support “all you can eat” and have room for any other services
  - cdma2000 Phase 2 requires 5 MHz of contiguous spectrum
  - Sprint’s & US West’s petition/proposal is a ploy to put future competition in the major markets at a significant “spectrum starved” disadvantage, and thereby minimize the spread of “all you can eat” service plans

# DE Needs **ALPINE PCS, Inc.**

- C and F Blocks belong with the DE's (If the DE spectrum is open to all bidders then the real DE's will be out bid)
- There needs to be a healthy, functioning small business block so that there will be:
  - Roaming among DEs (e.g., Sprint discourages roaming outside their or affiliate's networks by charging roaming charges of \$.39 to \$.69 per minute when outside these networks but not when in "their" network)
  - Economies of scale for purchasing (vendors charge at least 20% more to small carriers than they charge big carriers or affiliates of big carriers)
  - True competition to the big carriers

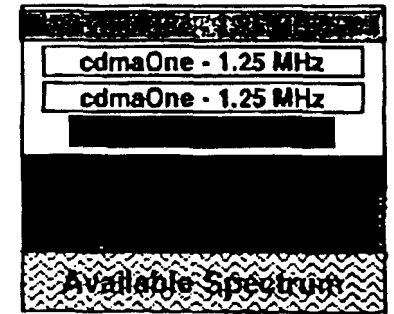
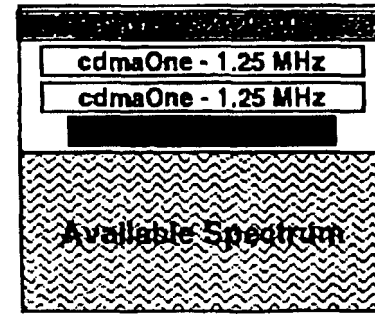
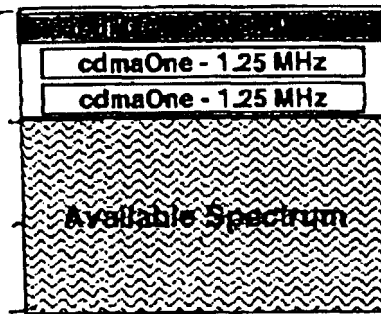
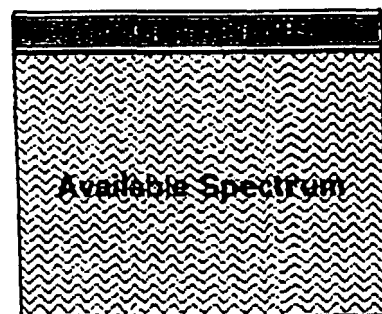
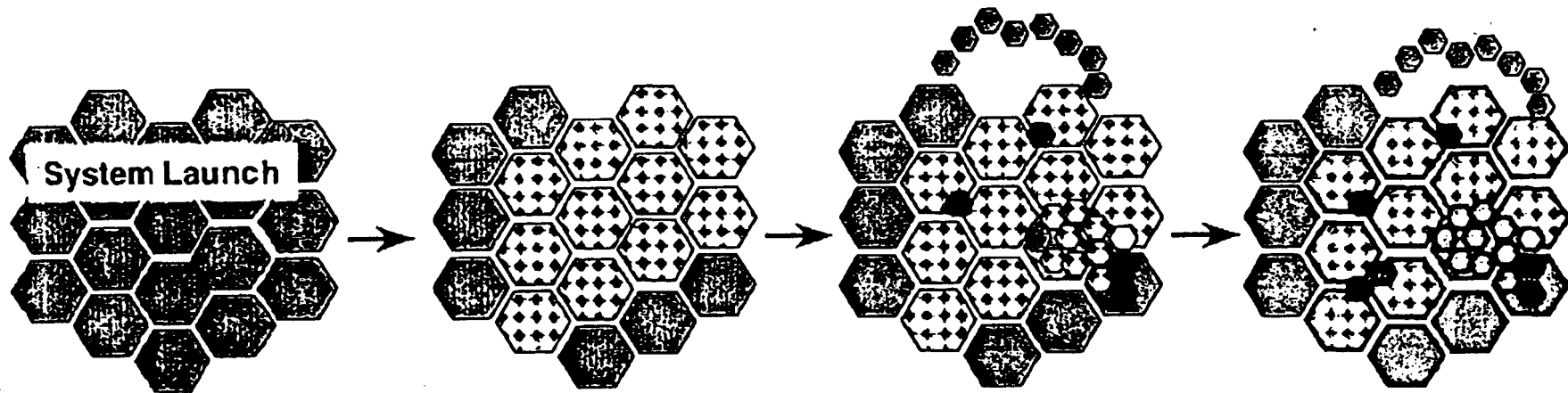
# Evolving cdmaOne Networks to cdma2000 (3G)

cdmaOne deployed  
with single 1.25MHz  
carrier

Additional cdmaOne  
carriers deployed for  
capacity

Microcells deployed for  
additional capacity, highways,  
and/or inbuilding services

3G services deployed  
using available  
Spectrum



Lucent Technologies - Proprietary

# Evolving cdmaOne Networks to cdma2000 (3G)

Lucent Technologies  
Bell Labs Innovations



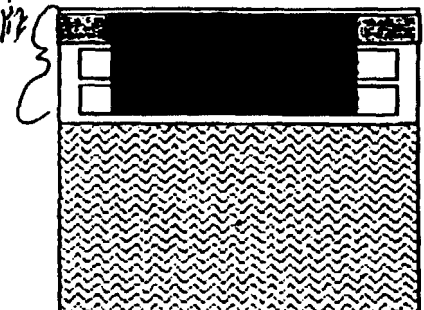
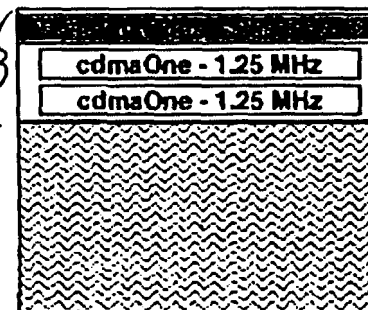
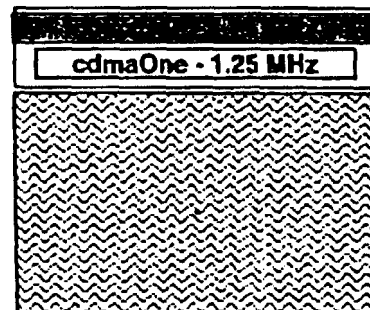
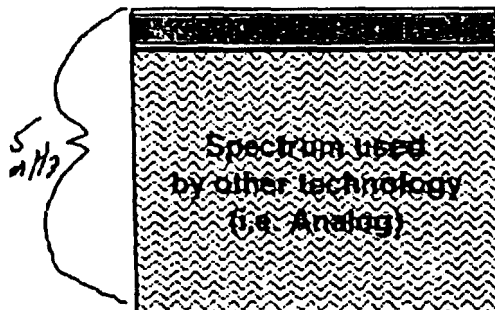
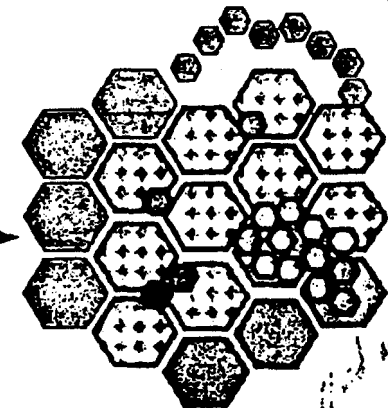
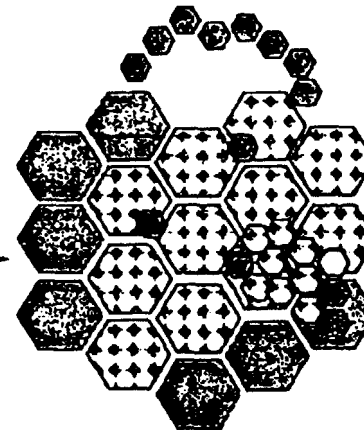
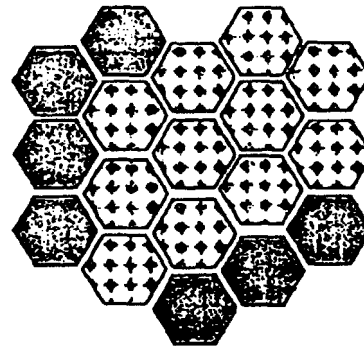
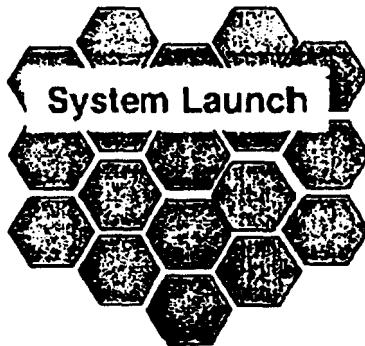
## Spectrum Limited Scenario

Spectrum Cleared  
(~1.5MHz) for first  
cdmaOne carrier  
(1.25MHz)

Additional spectrum  
cleared for additional  
cdmaOne carriers

Microcells deployed for  
additional capacity, highways,  
and/or inbuilding services

3G services deployed  
with cdma2000 Radios  
utilizing same  
spectrum as existing  
cdmaOne carriers



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